

CLAIMS:

1. An imaging apparatus, comprising:
a first substrate;
a second substrate;
a first imaging device mounted on the first substrate;
a second imaging device mounted on the second substrate; and
a glass tie bar having a first portion of the tie bar attached to the first substrate, and having a second portion of the tie bar attached to the second substrate.
2. The imaging apparatus of **claim 1**, wherein the first and second portions of the tie bar are attached to the first and second substrates by an adhesive cured by a mechanism other than heat.
3. The imaging apparatus of **claim 1**, wherein the first and second portions of the tie bar are attached to the first and second substrates by a light-curable adhesive.
4. The imaging apparatus of **claim 3**, wherein the light-curable adhesive is an ultraviolet light curable adhesive.
5. The imaging apparatus of **claim 1**, wherein the tie bar is formed of a glass having a coefficient of thermal expansion substantially similar to the coefficient of thermal expansion of the first and second imaging devices.
6. The imaging apparatus of **claim 5**, wherein the first and second portions of the tie bar are attached to the first and second substrates by a light-curable adhesive.

9. An imaging apparatus, comprising:

a first imaging subarray comprising a first printed wiring board having a joining end and a plurality of first semiconductor imaging chips mounted on the first printed wiring board, including a first end chip, wherein a portion of the first end chip projects beyond the joining end of the first printed wiring board;

a second imaging subarray comprising a second printed wiring board having a joining end, and a plurality of second semiconductor imaging chips mounted on the second printed wiring board, including a second end chip, wherein a portion of the second end chip projects beyond the joining end of the second printed wiring board; and

a glass tie bar connecting the first and second imaging subarrays, wherein:

a first portion of the tie bar is attached to the first printed wiring board with a light-curable adhesive; and

a second portion of the tie bar is attached to the second printed wiring board with a light-curable adhesive.

10. The imaging apparatus of **claim 9**, wherein the first and second imaging subarrays are positioned so that the end chip of the first imaging subarray is adjacent the end chip of the second imaging subarray.

11. The imaging apparatus of **claim 10**, additionally comprising a second glass tie bar connecting the first and second imaging subarrays, wherein:

a first portion of the second tie bar is attached to the first printed wiring board with a light-curable adhesive; and

a second portion of the second tie bar is attached to the second printed wiring board with a light-curable adhesive.

17. A method of forming an imaging apparatus, the method comprising:

forming a first imaging subarray comprising a first printed wiring board having a joining end and a plurality of first semiconductor imaging chips mounted on the first printed wiring board, including a first end chip, wherein a portion of the first end chip projects beyond the joining end of the first printed wiring board;

forming a second imaging subarray comprising a second printed wiring board having a joining end and a plurality of second semiconductor imaging chips mounted on the second printed wiring board, including a second end chip, wherein a portion of the second end chip projects beyond the joining end of the second printed wiring board;

bringing the first imaging subarray into proximity with the second imaging subarray so that the first end chip is immediately adjacent the second end chip;

applying light-curable adhesive to the first printed wiring board and to the second printed wiring board;

placing a glass tie bar so that a first portion of the tie bar contacts the light-curable adhesive on the first printed wiring board, and a second portion of the tie bar contacts the light-curable adhesive on the second printed wiring board; and

directing light onto the light-curable adhesive to cure the light-curable adhesive.

18. The method of **claim 17**, wherein the step of directing light onto the light-curable adhesive comprises directing light through the glass tie bar to the light-curable adhesive.

